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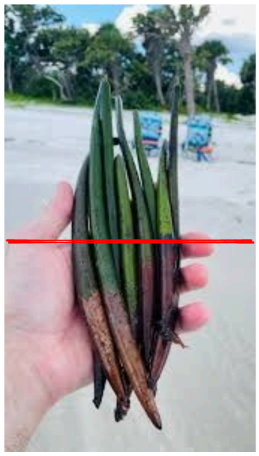
Kailua Mangrove Removal FAQs

How can you help?

- Learn more at www.huihawaii.org/mangrove
- Volunteer with us! See our calendar to sign up for our volunteer events.
- Collect any mangrove seedpods you see, snap them in half and dispose of in a trash or green waste bin. These seedpods are commonly seen on beaches and waterways throughout Windward Oahu (see below image for what the seedpods look like and where to snap them).



- Hand pull small, growing mangrove trees or cut all prop-roots at the low tide waterline. See below image for where to cut larger mangrove roots to remove them and a suitable size mangrove for hand-pulling.

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Who is cutting the mangrove?

- A hui of local organizations and government entities, including Hui o Koʻolaupoko (HOK), Division of Forestry & Wildlife, City & County of Honolulu, and hired arborists/tree removal contractors are working on various sections of the interconnected waterways of Ka'elepulu and Kawainui Streams
- These efforts are part of a larger, community effort to eradicate mangrove throughout the entire Kailua ahupua'a, as well as restore the loʻi, wetland, and provide habitat for native plants and animals throughout Kawainui and Kailua.
- HOKs goal is to remove all mangrove from the Ka'elepulu and Kawainui Streams within the next 5-7 years and then focus efforts on removing mangrove from the Mokapu/Oneawa canal.
- The restoration efforts along the Kawainui levee and Hamakua areas are supported by DLNR with funds from the National Fish and Wildlife Foundation (2026-2028)

Why is this happening all of a sudden?

- Mangrove removal throughout Ko'olaupoko has been an ongoing effort for HOK since our He'eia Estuary Restoration Project 2015-2022, and decades for other organizations across the State.
- Mangrove removal in Kailua has happened before, but only in limited sections of the interconnected waterways. HOK will bring our expertise and coordination to ensure that we work with various partners and funders to remove ALL mangrove from the connected waterways of Kailua.

Aren't mangroves good in some parts of the world?

- Red mangroves (*Rhizophora mangle)* are native to the Gulf of Mexico where they provide many functions for the ecosystem.
- Mangrove were brought to Hawaiʻi in the early 1900's.
- They are invasive in Hawaiʻi and don't provide the same ecosystem functions as they do elsewhere. Instead, they're significantly negatively affecting Hawaii's native habitats and watersheds.

Are the mangroves trapping sediment?

- Mangroves are utilized in some areas of the world for sediment retention and buffer coastal storm surges.
- In Hawai'i, mangroves capitalize on the 12 month growing cycle and grow much quicker and larger than they do in their native habitats. The prop roots capture sediment and contribute to the narrowing of waterways and reducing stream flow and oxygenation.
- Now, in Hawai'i, mangrove are producing more sediment than they trap because of their leaf litter.

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Will the removal result in sediment moving downstream onto the reefs?

- We are leaving the mangrove roots in place to minimize disturbance. In time, as the roots decompose, sediment will be slowly transported throughout the waterways.
- We have researchers monitoring the situation, taking regular measurements before and after mangrove removal.
- Our data and project reports from the He'eia Estuary Project are available on request via admin@huihawaii.org

What about climate change, sea level rise and floods?

- It is extremely difficult to predict exactly how sea level rise will impact the streams of Kailua but mangrove removal projects in Hawai'i are aimed at improving climate and ecosystem resilience by restoring natural hydrological flow, protecting native biodiversity, and resetting carbon cycling dynamics.
- Mangroves trap sediment and can block stream mouths, which may exacerbate the impacts of flash floods associated with Hawai'i's winter rains.
- While mangroves are globally recognized for carbon sequestration, the invasion of non-native species in Hawai'i significantly alters benthic carbon cycling
- In Hawai‘i, climate resilience is often viewed through the lens of cultural function. Mangroves actively damage historical Hawaiian fishponds and other archaeological sites by overgrowing their walls
- Clearing the stream channels of invasive vegetation will allow for transport of accumulated sediment and open the waterway to accommodate increased water flow
- Our project will coincide with a long term monitoring program to give us data on water quality and sediment levels in the streams and wetlands.

How will the mangrove be disposed of?

- Disposal of green waste for Phase 1 of this project will transfer all cut material to the greenwaste facility at the Kapa'a Transfer Station
- Future disposal methods may include the use of an Air Curtain Burner, a pollution-controlling machine used to dispose of clean wood and vegetation waste without open smoke, resulting in a sterile ash or carbon-rich biochar.

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Are mangroves providing habitat for native species?

- No. Typically, native species avoid mangrove areas. Mangrove didn't co-evolve here with our native species. There have been sightings of native birds utilizing mangroves as nesting sites on a rare occasion, except they prefer open water and native plant species for their nesting and habitat.
- Accumulated leaf litter from mangroves can break down and deplete oxygen levels in the water, harming avian life by contributing to botulism outbreaks.
- The removal of invasive mangroves in Hawai‘i helps the four endangered Hawaiian waterbird species primarily by restoring their natural foraging and nesting habitats
- Some ‘auku‘u sit in the trees, but other native shore and wetland birds nest on low branches or shrubs near open water and mud flats.
- The mangroves provide habitat for non-native species: rats, pigs, tilapia, egrets, samoan crabs, and non-native sponges and other aquatic invertebrates.
- Past mangrove removal projects and their associated biological monitoring programs have shown positive trends towards improved water quality, increase in native flora and fauna presence
- After mangroves are removed, we have seen native birds and fish move into the open water areas and utilize the native vegetation for forage and shelter.

What is the plan for keeping the area open after the mangroves are gone?

- Native plants will be replanted where feasible, and replanting plans can be arranged to replace any privacy screening previously provided by mangroves.
- Monthly volunteer events will continue through at least 2028, volunteers will assist via land and water to remove mangrove seedlings (which remain viable for ~1year), or any regrowth
- Hui o Ko'olaupoko is working on a wide mangrove eradication plan to ensure that all mature mangrove are removed from the Kailua waterways in the next 5 years. Maintenance and removal of any remaining seed pods will continue for at least 2 years following the mass removal.